

THE GREAT YARMOUTH

Urban and Port Sanitary Authority.

THE
ANNUAL REPORT

OF THE

Medical Officer of Health

FOR 1893.

—————:O:—————


PRINTED BY ORDER OF THE SANITARY AUTHORITY.

—————:O:—————

Great Yarmouth :

J. BUCKLE, STEAM PRINTER, 36, KING STREET.

1894.



Digitized by the Internet Archive
in 2017 with funding from
Wellcome Library

<https://archive.org/details/b2926800x>



REPORT.

TO THE GREAT YARMOUTH URBAN SANITARY
AUTHORITY.

GENTLEMEN,

The following I respectfully submit for your consideration as my Annual Report for 1893.

The estimated population of this Borough stood, on the 1st of last July, at 49,891, and by the end of the year, it had probably increased to 50,018.

The vital statistics I have to call your attention to refer to the fifty-two weeks ending with the 30th of last December, and during that time there were registered as occurring within the limits of your district,

1,417 BIRTHS and 980 DEATHS.

By applying these figures to the estimated population as given for the middle of last year, there evolves a

BIRTH₆ RATE of 28·40, and a

DEATH RATE of 19·64 per 1,000.

Of all the births 5·7 per cent. were illegitimate. Rather over 17 per cent. of the baby population of last year died before it was a twelvemonth old; children born in wedlock going at the rate of 16 per cent., whilst those of questionable parentage went at the rate of 32 per cent., or just twice as fast as those more happily circumstanced.

The death rates obtaining in each of the three registration districts within this Borough were as under :—

21·95 per 1,000 in the Northern District,
 19·36 „ „ Southtown „ and
 15·08 „ „ Gorleston and Southtown.

At the Workhouse in the Northern district there were 89 deaths of townspeople and one stranger. At the Royal Naval Hospital, in the Southern, there were 12 deaths of men belonging to the Royal Navy, and at the Public Hospital, in the same district, there were 27 deaths. How many strangers and visitors were included in the Yarmouth death roll of last year I am unable to say, for beyond giving the addresses where the deaths took place, my returns give no information as to the late homes of the deceased.

The table of Deaths on pages 6 and 7 is in accordance with the Local Government Board's direction, and exhibits many particulars as to ages and causes of death within your Sanitary district during 1893. I have supplemented it by giving the totals of like particulars for several years past, so that comparison of the various years may be made.

Of those Zymotic diseases the Registrar General takes special cognizance of as indicative of insanitary conditions, and which he quotes against us, there were within the Borough during last year 151 deaths, producing a death rate of 3·02 per 1,000 of the persons then living here. These figures with the chief of those given on previous pages, I here tabulate so as to bring them into contrast with the averages of the ten years last past.

Periods.	Births.	Rate.	Deaths.	Rate.	Zymotic Deaths.	Rate.
During 1893	1417	28·40	980	19·64	151	3·02
Average of ten } years, 1883-92 }	1577	32·28	982	20 09	123	2·52

It would be exceedingly interesting to know how the above rates compare with those of other towns of similar size to Yarmouth, but the Registrar General in his quarterly reports does not now give the birth or death rates for each of the towns he groups with Yarmouth. He however gives certain death rates for large aggregates of population, which enables me to place before you the following table.

Annual death rates per 1,000 from all causes, and from several zymotic diseases during 1893 :—

	All Causes.	Prinepl. Zymotic Diseases	Small-pox.	Measles	Scarlet Fever.	Diphtheria.	Whoop-ing Cough.	Fever.	Diar-rhoea.
England and Wales	19·1	2 46	0·04	0·36	0·23	0·30	0·32	0·23	0·96
33 Great Towns	21·5	3·18	0·07	0·44	0·29	0·42	0·48	0·24	1·22
67 other Towns (including Yarmouth)	19 1	2·84	0 05	0·51	0·20	0 19	0 31	0·33	1 24
England & Wales, } less the 100 Towns }	17·5	1·89	0·03	0·27	0·19	0·31	0·23	0 20	0·71
Yarmouth (alone)	19·64	3·02	0·00	0·26	0·22	0·30	0·32	0·46	1 46

The first line of figures relates to England and Wales as a whole, *i.e.*, all urban and rural districts massed together ; the second line relates to London and the great centres of trade and commerce, wherein the conditions of health in the aggregate are generally considered most unfavourable ; the third line relates to the large urban districts ; while the fourth line relates to all the small towns and rural districts in which the conditions of health are most favourable. The fifth line, relating to Yarmouth alone, is from my own data.

From the above table it will be seen that the Yarmouth gross death rate last year was about on a par with the urban districts the Registrar General associates our town with, and below that obtaining in the cities. We may

TABLE OF

During the year 1893, in the Urban Sanitary District of Great Yarmouth,

Names of Localities adopted for the purposes of these Statistics. (a)			Mortality from all causes, at subjoined ages.						
			At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.
			(b)	(c)	(d)	(e)	(f)	(g)	(h)
NORTHERN DISTRICT			477	96	36	24	21	156	144
SOUTHERN DISTRICT			305	80	39	13	15	97	61
GORLESTON & SOUTHTOWN			185	69	21	14	7	39	35
RUNHAM VAUXHALL			13	4	2	0	0	5	2
TOTALS ..			980	249	98	51	43	297	242
During the Year 1892 ..			1030	231	122	29	48	290	310
Ditto 1891 ..			1042	248	133	52	36	260	295
Ditto 1890 ..			986	271	90	50	42	222	311
Ditto 1889 ..			875	249	79	37	48	197	265
Ditto 1888 ..			1002	290	82	28	43	258	301
Ditto 1887 ..			986	265	129	31	57	214	290
Ditto 1886 ..			1087	348	123	25	42	221	328
Ditto 1885 ..			915	222	102	39	46	233	273
Ditto 1884 ..			1017	301	133	43	43	233	264

DEATHS,

classified according to DISEASES, AGES, and LOCALITIES.

Mortality from subjoined causes, distinguishing Deaths of Children under Five Years of age.

(i)	1	2	3	4	Fevers.					10	11	12	13	14	15	16	17	18	19	20	21	22
					Typhus	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.													
	Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.						Cholera.	Erysipelas.	Measles.	Whooping Cough	Diarrhea and Dysentery.	Rheumatic Fever	Ague.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Injuries.	All other Diseases	Total.
Under 5	—	2	6	1	—	1	0	—	0	0	0	1	7	24	0	—	1	22	0	4	63	132
5 upwds	—	3	5	0	—	7	2	—	3	1	3	1	0	6	4	—	26	60	39	10	175	345
Under 5	—	1	1	1	—	1	—	—	—	0	1	8	6	21	—	—	1	24	0	2	52	119
5 upwds	—	2	3	0	—	6	—	—	—	1	3	0	0	5	—	—	14	29	15	11	97	186
Under 5	—	1	—	1	—	1	—	—	—	0	—	1	3	9	0	—	0	17	0	1	56	90
5 upwds	—	2	—	0	—	2	—	—	—	1	—	2	0	5	1	—	10	9	11	3	49	95
Under 5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	4	6
5 upwds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0	—	0	7	7
Under 5	—	4	7	3	—	3	0	—	0	0	1	10	16	54	0	—	2	64	0	8	175	347
5 upwds	—	7	8	0	—	15	2	—	3	3	6	3	0	16	5	—	50	98	65	24	328	433
Under 5	2	7	3	3	—	1	—	—	0	—	0	5	36	32	—	0	2	71	0	13	178	353
5 upwds	2	3	5	0	—	18	—	—	1	—	2	0	1	7	—	1	63	142	59	29	344	677
Under 5	—	10	9	3	—	2	0	—	0	—	1	18	22	38	0	—	1	78	0	6	193	381
5 upwds	—	1	10	0	—	28	3	—	3	—	3	1	0	8	3	—	69	97	56	33	328	643
Under 5	—	1	3	2	—	1	1	—	0	—	0	2	21	46	0	—	9	60	0	6	209	361
5 upwds	—	0	0	1	—	32	2	—	4	—	3	0	2	12	2	—	63	96	51	26	331	625
Under 5	—	—	1	3	—	4	—	—	0	—	3	18	1	53	0	—	10	56	0	8	174	328
5 upwds	—	—	1	2	—	21	—	—	2	—	0	2	0	5	2	—	59	55	54	31	310	574
Under 5	1	—	1	7	0	0	0	—	0	—	2	1	11	65	0	—	9	55	1	5	214	372
5 upwds	0	—	1	0	1	19	3	—	3	—	1	0	0	6	2	—	60	108	62	35	330	630
Under 5	—	4	2	8	—	4	—	—	0	0	1	25	14	42	0	—	1	92	1	6	194	394
5 upwds	—	3	0	3	—	18	—	—	5	1	3	0	2	1	1	—	64	87	66	42	295	592
Under 5	—	14	2	5	—	0	0	—	0	—	1	11	28	89	2	—	2	54	1	12	250	471
5 upwds	—	4	1	0	—	14	1	—	2	—	4	1	0	6	3	—	54	102	49	23	352	616
Under 5	—	8	7	6	—	2	0	—	0	—	2	6	5	32	0	—	2	50	2	6	196	324
5 upwds	—	1	1	6	—	42	2	—	1	—	6	0	0	4	2	—	72	83	56	22	293	591
Under 5	0	0	10	17	—	0	0	—	0	4	3	31	19	62	0	—	3	66	0	1	218	434
5 upwds	1	1	4	6	—	18	1	—	2	2	4	3	0	2	5	—	68	70	69	24	303	583

therefore consider it was normal. It is also interesting to note that 298 of the deaths were those of persons well advanced in years, viz :—

115	were between 60 and 70
111	„ „ 70 „ 80
61	„ „ 80 „ 90
and 11 were over 90.	

From considering our last year's record of deaths, we now pass to our record of illnesses caused by infectious diseases, and made known to us through the operation of the Notification Act. The following table, prepared by direction of the Local Government Board, gives the the number, nature and localities of such illnesses, and also indicates the numbers of such cases treated at the Isolation Hospitals. Of the 589 cases reported, 73 were received into your Hospitals, and of these 12 were actual paupers and paid for by the Guardians, 44 were persons whose circumstances did not admit of any payment, and in 17 instances only did the patients or their friends pay the small charges you required of them. Only just over 12 per cent. of the cases notified were treated at your hospitals. Of course the more infective diseases largely contributed to this per centage, and it is much to be desired that a yet larger proportion of those maladies should be removed there as occurring. No doubt this will be the case when the new Hospital is finished. Even with our present accommodation at the Estcourt Road Institution, we housed more cases of scarlet fever there last year than we ever did before. This however was accomplished by occupying the whole of the old hospital with that disease alone. The building of the new hospital is proceeding apace and the Surveyor hopes to have it completed and ready for occupation by October.

Table of Population, Births, and of New Cases of Infectious Sickness,

Coming to the knowledge of the Medical Officer of Health, during the year 1893, in the Urban Sanitary District of Great Yarmouth; classified according to Diseases, Ages, and Localities.

Names of Localities adopted for the purpose of these Statistics.	Population at all Ages.		Registered Births.	Aged under 5 or over 5	New cases of Sickness in each Locality, coming to the knowledge of the Medical Officer of Health.										Number of such Cases Removed from their Homes in the several Localities for Treatment in Isolation Hospital.																					
	Census 1891. (b)	Estimated to middle of 1893. (c)			Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	Fevers.						Cholera.	Erysipelas.	Cholera.	Typhus.	Membranous Group.	Fevers.						Smallpox.	Scarlatina.	Diphtheria.	Membranous Group.	Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Cholera.	Erysipelas.
									Typhus.	Enteric or Typhoid.	Continued.	Relapsing.	Puerperal.	Typhus.						Enteric or Typhoid.	Continued.	Relapsing.	Typhus.	Enteric or Typhoid.	Continued.												Relapsing.	Puerperal.
NORTHERN	21,143	21,269	551	Under 5 5 upwds	0	32	7	1	—	—	7	0	—	0	0	3	0	0	—	—	0	9	2	3	4	5	6	7	8	9	10	11				
(a) WORKHOUSE	(509)	—	—	Under 5 5 upwds	1	113	9	0	—	—	73	11	—	3	2	33	5	1	—	—	4	33	—	—	—	—	—	—	—	—	—	—				
(b) RUNHAM VAUXHALL	600	612	24	Under 5 5 upwds	—	—	0	—	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
SOUTHERN	15,839	15,748	454	Under 5 5 upwds	—	13	1	—	—	—	6	1	—	0	—	0	—	—	—	—	2	16	—	—	—	0	—	—	—	—	—	—	—			
GORLESTON & SOUTHTOWN	11,736	12,262	388	Under 5 5 upwds	—	59	8	—	—	—	13	2	—	—	—	5	—	—	—	0	4	—	—	—	—	—	—	—	—	—	—	—	—			
PORT	—	—	—	Under 5 5 upwds	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
TOTALS ..	49,318	49,891	1417	Under 5 5 upwds	0	60	9	1	—	—	14	2	—	0	0	3	0	0	—	—	11	53	—	—	—	0	—	—	—	—	—	—	—	0		
					2	246	32	0	—	—	137	21	—	4	2	51	5	2	—	—	2	53	—	—	—	5	—	—	—	—	—	—	—	2		

By the table I have placed hereunder you may see the monthly record of notified cases of each of the infectious diseases, and the deaths resulting throughout last year.

MONTH.	Small pox.		Scarlatina.		Diphth- eria.		Membran- eous Croup		Typhoid		Con- tinued.		Puer- peral.		Cholera.		Erysipe- las.	
	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths	Sickness	Deaths
JANUARY	..	..	20	1	2	1	..	1	2	..	..	..	..	..	..	..	1	1
FEBRUARY	1	..	42	2	2	2	..	..	3	..	1	..	..	..	..	..	3	1
MARCH	..	..	12	..	..	..	..	..	2	..	1	..	..	..	..	..	3	1
APRIL	1	..	7	..	2	1	..	..	11	..	..	..	..	..	..	..	3	..
MAY	..	..	17	2	3	2	..	..	6	2	..	..	..	..	..	1	2	..
JUNE	..	..	14	1	2	1	..	..	4	1	..	..	..	..	..	2	2	..
JULY	..	..	29	1	2	1	..	..	10	1	..	..	..	..	..	9	9	..
AUGUST	..	..	42	..	..	..	..	..	11	1	2	1	..	..	..	2	2	1
SEPTEMBER	..	..	43	2	5	2	1	1	18	5	4	1	..	1	1	11	11	..
OCTOBER	..	..	37	3	13	3	..	..	38	4	11	..	1	2	..	8	8	2
NOVEMBER	..	..	32	1	5	1	..	..	32	1	3	..	1	1	..	7	7	..
DECEMBER	..	..	11	1	5	1	1	1	14	1	1	..	1	..	..	..	..	2
Totals	2	..	306	11	41	15	1	3	151	18	23	2	4	3	2	3	54	7

You will note Scarletina and Typhoid have been constantly with us. The former disease appeared about the middle of 1891, and we have not been free from it since,

while the latter seems a native of this Borough ; we have had it in our midst so long. Almost as much might be said of Diphtheria. All these diseases are influenced by the condition of the subsoil and surroundings of dwellings, but typhoid is by far the most so. I have in former reports gone into the question of its causation in this Borough, and nothing has arisen to alter the opinion I have already expressed. I am satisfied every improvement which tends to purify and dry the soil, as well as the dwellings and the atmosphere in and around them, correspondingly diminishes the chances of the people contracting typhoid. Your resolution to underdrain the Rows, so that w.c.'s may supersede the privies existing in the densely crowded districts those narrow passages traverse, is a very wise one, and the work must prove a sanitary improvement of the first importance, by largely contributing to the good health of the poor people living in them.

Of the two cases of Small Pox, one occurred in the person of a resident in the town who lived in a damp, dirty house, on very poor fare, and who had a fortnight previously been in contact with a child suffering with water-pox. The patient was promptly removed to the Isolation Hospital, his wife and children re-vaccinated, and his house thoroughly disinfected and cleansed. The other case was of a tramp, who brought the infection from others of his class he had associated with in the neighbourhood of Wells, on the north coast of Norfolk. He fell ill with the disease in Yarmouth Workhouse, but by the promptness of his removal to your Hospital and the thoroughness of the action taken at the Workhouse, that institution was saved from any extension of the disease. We nevertheless deemed it advisable to keep under observation and isolation there for a fortnight all who had slept

in the same ward with the patient during the night he developed the disease.

It may be convenient to consider the cases set down as Cholera in connection with those notified as Choleraic Diarrhœa. We have unfortunately in Yarmouth every year, about the latter end of the summer, much Diarrhœa of a fatal character, especially among children, and the mortality caused by this disease is annually in excess of that caused by any other Zymotic. This has been the case for a great many years past, and has attracted the attention of the Local Government Board, who in 1880 directed their Inspector, Dr. Ballard, to include Yarmouth in the survey he was then making of the towns most notorious for diarrhœal fatality. Unfortunately, hardly a year passes but that amongst the diarrhœa cases some are so rapidly fatal, and accompanied by such strange symptoms as to be characterised as English Cholera. Medical men who have seen much of disease in Yarmouth are well acquainted with this fatal form of choleraic diarrhœa, and are satisfied of its being an indigenous malady. Others depending upon scientific observations of secretion only, have spoken of it as "culturally true cholera" or "bacteriologically indistinguishable from Asiatic cholera." Dr. Ballard, at page 18 of the valuable report his diarrhœa survey resulted in, says "the kinship of diarrhœa to malignant cholera is seen principally in the fact that both are clinically diarrhœal diseases, in which the abundant watery discharges from the bowels are more or less rapidly succeeded by collapse, in which there is the same similarity (in diarrhœal cases about to become fatal), in the *facies* the sunken eyes, the shrinking of the bulk of the body, and algidity in certain cases. In both there is free desquamation of the intestinal epithelium, in both the kidneys are early implicated, and in both this condition may issue in

uræmia and its results.” Whether the “kinship” of these diseases ever develops into identity when they are nurtured and propagated in favourable conditions, is a question of the greatest concern. Much has of late been advanced in support of this view, and, if it is correct, the practical precept it teaches us is that where such a state of wholesomeness obtains as banishes diarrhœa, cholera cannot abide.

An *epitome* of Dr. Ballard’s suggestions for combatting the diarrhœa scourge here follows :—

“*Liquid and solid filth removal.*”—A general use of a perfect and complete system of sewers, including therein perfection in flushing, ventilation, and constant cleanliness, and an efficient scavengering service.

“*Domestic cleanliness,*” a condition only assured by frequent domiciliary visitation.

“*Dryness and cleanliness of soil*” by covering the ground immediately about dwellings with impenetrable pavement, so that rain and slops do not soak in but pass onward to drains.

“*Lowering of ground water.*” As the tides influence the level of the water in the subsoil of Yarmouth, nothing can be really accomplished under this head, but inasmuch as it is tidal water beneath us, much impurity is thus washed out of the subsoil.

“*Preventing rise of ground air*” should be attempted by concreting the surface of the soil beneath houses, and the free wall ventilation of all underfloor space.

“*Free ventilation about and within dwellings.*” Absolute prohibition of back to back houses ; ample unencumbered space both before and behind houses ; windows made to open ; perforated bricks near ceilings, &c., &c. (A rigid

adhesion to your new building bye-laws will secure all that is suggested in this and the previous paragraph, in all parts of the Borough outside the Town walls; and similar regulations are much needed for the construction of new buildings within the Town walls.)

“*Protection of food from infection*” resolves itself into a recommendation for the supervision of all Fish, Fruit, Milk, Bread, Meat and water supplies, so as to ensure cleanliness and wholesomeness in all processes these and other articles of food and drink are subjected to. And it also suggests lightsome, airy, sweet and cool larders, the reverse of which unfortunately are to be found at the majority of dwellings especially of the humbler classes.

“*Due regulations of sewers and drains,*” so that none become elongated cesspools or conduits of sewer gas; their complete disconnection with the inside of houses and their ample ventilation.

“*Measures of general Sanitation. And lastly, I have to say whatever may be the essential cause of the malady, everything that promotes general ill health in a population probably renders it more liable to attack, and certainly inclines the illness towards a fatal issue.*”





SANITARY WORK.

NUISANCE REMOVAL.

The total number of notices issued from the Town Clerk's office last year for the suppression of nuisances were ... 679

Of these Inspector O'Connor reported 391

And Inspector Crane ... 288

The following are the particulars of the work the notices indicated :—

NATURE OF NOTICES.	O'CONNOR'S.	CRANE'S.
To replace privies with w.c.'s ...	142	98
To add flushing apparatus to pan closets and otherwise repair w.c.'s ...	16	7
To ventilate soil pipes ...	6	9
To reconstruct privies ...	7	0
To reduce size of privy pits, to fit small doors, and otherwise repair privies	21	25
To disconnect sink, waste and leading down pipes from drains, &c. ...	14	23
To replace defective yard gullies with stoneware syphons ...	33	36

NATURE OF NOTICES.	O'CONNOR'S. CRANE'S.	
To cleanse and relay drains ...	16	24
To make houses fit for habitations ...	22	10
To close wells and obtain a wholesome drinking water supply ...	30	9
To concrete or otherwise pave and relay yards, passages, &c. ...	42	20
To cleanse and whitewash ...	13	10
To put up water troughing ...	5	2
To cleanse and fill up r.w. cistern, cess-pools, dead wells, &c. ...	5	3
To abate sundry nuisances about bake-houses ...	6	2
To abate sundry nuisances about cow-sheds ...	3	3
To abate miscellaneous nuisances ...	10	7

Besides the above work, much of minor importance was carried out upon the Inspectors' verbal notices only, and it is only right to state that many of the notices for the construction of w.c.'s, the concreting of back-yards, &c., arising from entries made in Inspector O'Connor's journal, really originated with the house-to-house inspection done by Mr. Prime in the south part of the town. That district being left incomplete when you ceased employing him, was early last year re-visited by me, and reported upon to you from time to time, as I was able to accomplish the inspection, on separate printed sheets. The unfinished work those sheets indicated Inspector O'Connor transferred to his journal, and saw carried out, as it all laid in his district.

The house-to-house inspection commenced some years ago is still going on although tardily. Inspector Crane is devoting his spare time to it, but inasmuch as his regular

duty has first to be performed, he has very little time for this special work. I am quite sure the house-to-house work is the most important for improving the sanitary condition of the homes of the people you ever embarked upon. It is work which requires to be done thoroughly, steadily and persistently, and the person doing it should have good practical and technical knowledge of the various trades associated in house building. According to the ordinary fitness of things, one would say the Inspector you employ for seeing your building bye-laws are properly complied with would be just the officer to be charged with house-to-house inspection, and as buildings in course of erection are but few, he ought to have ample time to devote to this systematic work. It is quite practicable that the work of a competent and active Building Inspector could be so planned as to enable him to thoroughly carry out the inspection of houses already built, as well as a supervision of those in course of erection. The one work seems so entirely related to the other that it appears strange they were ever placed in different hands. I consider in the officials above mentioned you have ample *personnel* for the thorough and constant inspection of your district, including the special house-to-house work. Only there needs to be some re-arrangement of their duty, and an improvement in the ability and energy of at least two of them. The efficient officering of your inspectorial staff is a matter of the first concern, and I commend it to your serious and early consideration.

The Common Lodging-houses, of which there are eight, have had particular attention during the past year. I have several times visited the whole of them, and in a special report made to your Sanitary Committee, dealing with their present condition, &c., I suggested that their inspection should be placed in the hands of your sanitary

officials, and the police relieved of all such duty in regard to them. This you have done, and I would now further recommend the present Bye-laws relating to such houses, which are twenty-five years old, be revised and brought up to date. The first case of choleraic diarrhœa reported last autumn occurred in a common lodging-house, in the person of a man who had eaten putrid fried fish the night before. The case was promptly removed and made a good recovery at your Gorleston Isolation Hospital.

The Bakehouses, or at least fifty of them, were carefully inspected by me during last summer, and I found several of those occupied by confectioners in a very dirty and unkempt state. In those where bread only was made cleanliness was more general. Apparently on account of the sugar, eggs, butter, fruit, &c., used in confectionery, a condition of grease and stickiness is engendered which seems inseparable from the work, but that many of the bake-houses should be grossly filthy, lumbered up with empty kegs, tins, sacks, &c., infested with flies, and overcrowded with workers is altogether unnecessary. My visitation resulted in the cleaning out and whitewashing of all needing it.

The question of removing the Slaughter Houses out of the town has been before you many years, and in August, 1885, you appointed a committee "to consider the question of erecting a public abattoir for the Borough." The committee met several times and finally, in reporting on February 25th, 1887, considered it would not be expedient to erect the slaughter-houses on a site they had visited on the North Denes, "owing to its distance from the town and to the small chance of the slaughter-houses (if rented) being let at remunerative prices;" and, without any further reference to a public abattoir, recommended "that

the piece of ground bounded by Nelson Road on the east, Beaconsfield Road on the north, the road to the east of the Workhouse on the west, and Estcourt Road on the south, be set apart for a cattle market and slaughter-houses, and that persons requiring new slaughter-houses be granted portions of the land on leases, upon terms to be arranged in each case ; no pigs to be kept upon the premises ; and plans of buildings to be duly approved." And further, " that no new slaughter-houses be permitted to be erected in the parish of Great Yarmouth, except on the piece of ground recommended to be set apart for slaughter-houses, and that no existing slaughter-house be allowed to be enlarged or added to." The area thus set apart and ordered to be leased to persons for them thereon to build private slaughter-houses, included, with other land, the whole site of the buildings and grounds of the Infectious Diseases Hospital, it being then contemplated to remove and re-build that institution on an improved plan in a locality further away from the town and more accessible from the Harbour. But the hospital was not removed, and no application was made for any portion of the land for slaughter-houses. Now, however, the whole of it is being occupied by the Corporation Stables, Town Yards, and extension of the Isolation Hospital, while practically new slaughter-houses are prohibited " in the parish of Great Yarmouth." This is exceedingly unfortunate, for the slaughter-houses now existing are in the very heart of the town, and a great nuisance to the surrounding locality. Being limited in number, they are also in some instances used by two or three butchers, so that slaughtering is continually going on. The cleansing of such co-occupation premises is frequently a matter of dispute among the men at work in them, and often ends in a dirtier condition of the premises than ought to exist. My visitation of

the slaughter-houses last year again satisfied me of the impossibility of any real sanitary improvement of them on their present site, and I respectfully repeat the advice I tendered you years ago, and recommend in lieu of them a public abattior outside the town. I would also recommend a revision of your Slaughter-house Bye-laws, which are somewhat ancient and require to be improved in several particulars.

The Offensive Trades of bone-boiling, fat melting, &c., &c., connected with slaughtering apparently must stay in town or go outside with the slaughter-houses themselves. I paid surprise visits to these places during last summer, and found the best efforts being made to conduct them properly, but they are nevertheless a nuisance when extra slaughtering is being done and the weather is hot, for then the offal fat and bones are in greater abundance and become putrescent more rapidly than in cooler seasons. I also visited the Manure Works and Knackers' Yard at Runham Vauxhall, the latter of which is, from the wretched nature of the buildings and absence of proper appliances, in a very insanitary condition. The occupier is, I believe, taking steps to provide himself with an establishment of a thoroughly satisfactory character.

The Cow-sheds and Dairies within the Borough have been from time to time visited, and generally they are in a satisfactory condition, but the retailers of milk are so numerous and various that it is difficult to keep in touch with all of them. Small provision dealers are continually to be found selling milk from open pans standing on their counters and exposed to all the dust and effluvia of the heterogeneous contents of their shops. They consider it impertinent officialism when informed such a condition of things is dangerous to the wholesomeness of the milk, and

contrary to the regulations to continue its sale from such places. No case of illness occurring last year was traceable to the milk supply.

In this connexion I may mention the very little that was done under the Food and Drugs Act. The analyst tells me "there were seven samples of milk examined during 1893, and nothing else. Three samples were adulterated to the extent respectively of 10, 12, and 15 per cent. of added water."

The Inspector of Fish has again done good work at the Wharf and amongst the fish shops in the town. During last year he condemned as unfit for human food:—

	TONS.	CWTS.	QRS.
162 Boxes of Trawl Fish, weighing	6	1	2
6 Swills of Mackerel	0	12	0
838 Swills of Herrings	83	16	0
83 Boxes of Kippers	0	7	0
	<hr/>		
	90	16	2
	<hr/>		

My advice was frequently in request by your Sanitary Committee last year, notably in planning and arranging the extension of the Isolation Hospital in Estcourt Road ; in selecting a site and erecting the Rural Hospital at Gorleston, which is reserved for Small-pox cases ; and in providing the Cholera Hospital by the Harbour's mouth. Not many Sanitary Authorities were better prepared for any infectious disease that might come than you were last year. We had altogether hospital space for 46 beds, but when the two new pavilions are finished at Estcourt Road, we shall have ample room for 8 or 10 more. As our normal population is now over 50,000, and is considerably augmented every summer and autumn by visitors and

fishermen, I consider we shall have, even when the new buildings are complete, no more hospital accommodation than a town of this size and importance ought to have.

The large increase in the number of water-closets placed in connection with the north and south main sewers during the last few years, and also the copious flushing these sewers get from our sea-water tanks, have been for some time seriously taxing their capabilities ; and, last autumn, acting upon my advice, you determined to construct two other main sewers to intercept and relieve the original ones of half the areas they respectively drained. This work is now being completed, and cannot fail to prove of most essential service to the sanitation of the town. A further work of drainage of some magnitude you have decided to carry out is the underdraining of the Rows ; this being an absolute necessity in order that proper w.cs. may supersede the offensive privies now existing in those closely packed courts. You have already extended your sea water service into the Row district, so that as the new drains are laid, each one will have its own flushing and ventilation arrangements completed with it.

Initial proceedings by my advice were taken under the Housing of the Working Classes Act in respect of 32 dwellings, whilst further action ending in demolition or renovation was taken with several others. The effect of the operation of the Act in this Borough is to so thoroughly depreciate the worst of the house property, that during the past year many more houses have been demolished than the Act has been applied to. As an instance of such action in anticipation, I may remind you the Brewery Company bought up the whole of the houses in Row 17 and those on the north side of Row 18, and have pulled them all down. Henceforth Row 17 will cease to exist, as the Company

intends incorporating the whole site in the new extension of their premises.

My time last year was fully occupied with Public Health work. I was frequently advising the Sanitary Authority upon many matters other than those already mentioned, and constantly assisting and directing the Sanitary Inspectors. I attended twelve Council meetings, twenty-three Sanitary Committee meetings, thirty-four meetings of the House-to-House Committee, and twenty-one meetings of Hospitals and Health Committees. I also attended the Police Court on fourteen different occasions to support the action of the Sanitary Authority; I devoted twelve days to attending upon Local Government Board Inspectors, and made two journeys to London, once to attend the Port Sanitary Conference at the Guildhall, and once to the Local Government Board with plans for the Isolation Hospital extension. I also attended daily at the Town Hall and conferred with many of the public having complaints to make or sanitary work to carry out; frequently interviewed the Town Clerk or Borough Surveyor, when those gentlemen needed my advice or I theirs; and with each of the Inspectors made frequent tours of their districts, advising and helping them in their work. In thus endeavouring to discharge my public health duties, which increase year by year, I spared myself neither in time, trouble, or indeed expense.





PORT SANITARY AFFAIRS.

The number of trading vessels and fishing craft on the Register at the Custom House has not materially altered during the past year, but some increase has taken place in the trade of the port. The arrivals were 1127 coming coastwise, and 307 coming over sea, the vast majority of the latter being from the Baltic and north of Europe. These vessels were estimated by the Customs Authorities to bring 2085 persons as the crews, and 33 persons as passengers. Besides the above many of our trawlers sold fish at Dutch ports, and thus increased our contacts with the Continent. None of these vessels brought us any case of infectious disease. The deaths at sea from sickness and casualties, other than actual shipwreck, amounted to 25. In all cases in which the bodies were brought on shore inquests were held.

During the whole of last year I gave much attention to Port Sanitary work ; indeed this duty, on account of the apprehension of Cholera invasion, was the most anxious and constant I had to perform. Until the middle of April I was practically without help ; since then

I have had a Port Sanitary Inspector, who has done good work in connexion with all classes of shipping using this Harbour. My work consisted of visiting vessels from foreign ports, inspecting their crews, ascertaining the quality of their water supply, and directing and supervising the work of the Sanitary Inspector. In all I boarded and examined the crews of 209 vessels from suspected or infected ports.

The work of the Sanitary Inspector is best told in the report he made to you in November, when his term of temporary employment was closing, and you were considering the advisability of appointing him permanently. He reported that from the commencing of his duty as your Assistant Port Sanitary Inspector, on the 17th of April last to the time of writing, he had, under my direction, done his inspections in regular daily routine, occupying thereon the usual working hours, besides attending on the pier at tide times to note incoming vessels, the ports they were from, and the health of their crews. During the first few weeks he made a ship-to-ship visitation, so that all the vessels then in harbour were thoroughly examined. Since, he has made a daily circuit of the haven, examining any fresh arrival, and visiting again many vessels, on board of which he had previously ordered some cleansing work to be done. Vessels of every description equally had his attention, and the unwholesome conditions he has chiefly noted and caused to be rectified were those arising from dirty forecastles, deck houses, cabins or closets, filthy clothes or bedding, dirty meat casks, water tanks or biscuit lockers, filthy ballast and bilges, &c. He had paid particular attention to the drinking water on board all craft, causing a great many to take in a wholesome supply. Towards the end of the summer he kept a strict

observation on mussel dredgers and eel catchers to prevent them contaminating their mussels and eels with town sewage ; and during the autumn he had given special attention to the herring boats, particularly those which have been fishing out of Grimsby. The following is a *resumé* of his seven months' work :—

Class of Vessel dealt with.	Total Number Inspected.	Found Satisfactory.	Dirty in some one or more Particular.
Merchant vessels, steamers, and coasters—home and foreign trade }	330	133	197
Smacks and herring boats ...	356	260	96
Scotch fishing boats ...	142	82	60
Wherries ...	126	87	39
Yachts on hire ...	50	35	15

He thus examined 1004 vessels, visiting the 407 he found dirty two or three times, making in all 1762 visits. He further stated that the various cleansings he had found necessary to order on board the 407 he had seen carried out in all but 15, these vessels having left the harbour before he could ascertain that his orders had been obeyed.

A great improvement in Port Sanitary work would be obtained by a uniformity of sanitary regulations or bye-laws at all British ports, so that captains may know what is required of them, go where they may. At present the health sections of the Shipping Acts and the Quarantine Acts are tolerably well understood, and, being administered by central authorities, there is a uniformity of their operation which contrasts with the administration of the Public Health Acts as applied to shipping by Local Authorities. At the chief ports a far more complete organization, inspection, and administration obtains than at the lesser ports, and yet infection might assail any one

of them with a very good chance of getting on shore. As their commerce is less, probably the risk is less also, but it is the weakest link in the chain that snaps first, and in order to strengthen the whole Port Sanitary service, general regulations to be carried out at every port might with advantage be issued by the Local Government Board.

For the foregoing report I respectfully crave your consideration,

And am, Gentlemen,

Yours very obediently,

JOHN BATELY, M.D.,

Medical Officer of Health.



